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REMARKS

This is a full and timely response to the final Office Action mailed May 24, 2006. The Office Action rejected claims 1-9, and 11-24. By the present amendment and response, independent claims 1, 11, and 20, and dependent claim 22 have been amended. After entry of the present amendment and remarks, claims 1-9 and 11-24 remain pending in the application. Consideration of the enclosed amendments and remarks is requested.

I. OBJECTION TO CLAIMS 1-9, 11-19, AND 22-24

The Office Action objected to claims 1-9, 11-19, and 22-24. Independent claim 1 has been amended to clarify the scope of the claimed invention. Dependent claim 22 has been amended to depend from independent claim 1 rather than cancelled claim 10.

Claim 11 recites a "kit" and elements of the kit. Specifically, claim 11 currently recites, "A kit for accelerating a healing process for an injury upon application of ultrasound, the kit comprising...." This claim, and the corresponding dependent claims 12-19, and 23-24 do not relate to a method and instead relate to a "kit".

The amendments to claims 1 and 22, and the above remarks related to claim 11 are believed to traverse the present objections.

II. REJECTION OF CLAIMS 11, 14-19, AND 23-24 UNDER 35 U.S.C. 103

Claims 11, 14-19 and 23-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Unger* in view of *Talish, et al.* and *Ishikawa, et al.* Assignee believes this rejection is traversed for at least the following reasons.

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Assignee disagrees with the Office Action assertion that "[i]t would have been obvious to one skilled in the art to have further modified Unger such that the means for delivering the contrast agent into the patient is as taught by Ishikawa et al. Such a modification merely involves the substitution of one known type of delivery system for another and allows a more controlled delivery system to be used." Office Action, pp. 3-4. *Ishikawa et al.* relates to an implantable drug delivery system that relies on a radio frequency (RF) receiver 134 to communicate with a RF transmitter 146 for instructions to heat or cool the ball semiconductor 110 to control the release of a drug from the system. Col. 7, lines 1 – 62. *Ishikawa et al.* relies on a RF transmitter/receiver combination to facilitate delivery of a drug from a capsule rather than piezoelectric-type components to control the release of an ultrasound contrast agent to specifically target a proximity of an injury. The Applicants' claimed invention simplifies the delivery/release instead of using or adding relatively complex communication and control to facilitate the release of an ultrasound contrast agent to specifically target a proximity of an injury. Utilizing a chemical and/or piezoelectric components, for instance, in the delivery/release permits the claimed invention to avoid relatively complex communication and control devices, and therefore contrary to the Office Action assertion, it would not have been obvious to merely substitute one known type of delivery system for another.

Claim 11 has been amended to clarify that a "piezoelectric sensor" and "acoustic signal" are utilized to control the release of an ultrasound contrast agent to specifically target a proximity of an injury. This amendment is supported at least by the Applicants'

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specification in FIG. 1, and at page 11, lines 20-26: "In its simplest form, the capsule 108 exists without a sensor and associated circuitry, and is configured as a chemically-controlled timed-release system, with contrast agent(s) 104. In a more complex configuration, the delivery/release system 106 is contemplated to have a capsule 108 containing a non-lead piezoelectric sensor 110, such as polyvinylidene flouride (PVDF), for receiving and responding to an acoustic signal, and a compartment 112 for the contrast agent(s) 104." *Ishikawa et al.* does not teach or suggest the use of a "piezoelectric sensor" and "acoustic signal" to control the release of an ultrasound contrast agent to specifically target a proximity of an injury.

Since *Ishikawa et al.* does not disclose or suggest each and every element of amended claim 11, then claim 11 and its corresponding dependent claims, 14-19 and 23-24 should be allowable over the cited references.

III. REJECTION OF CLAIMS 1-9 AND 11-24 UNDER 35 U.S.C. 103

Claims 1-9 and 11-24 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Duarte et al.* (5,904,659) in view of *Vago, Unger, Ishikawa, et al., Unger, et al.* and *Lang, et al.* Assignee believes the rejection is traversed for at least the following reasons.

Assignee disagrees with the Office Action assertion that "[i]t would have been obvious to one skilled in the art to have further modified Unger such that the means for delivering the contrast agent into the patient is as taught by Ishikawa et al. Such a modification merely involves the substitution of one known type of delivery system for another and allows a more

controlled delivery system to be used." Office Action, pp. 3-4. *Ishikawa et al.* relates to an implantable drug delivery system that relies on a radio frequency (RF) receiver 134 to communicate with a RF transmitter 146 for instructions to heat or cool the ball semiconductor 110 to control the release of a drug from the system. Col. 7, lines 1 – 62. *Ishikawa et al.* relies on a RF transmitter/receiver combination to facilitate delivery of a drug from a capsule, rather than piezoelectric-type components to control the release of an ultrasound contrast agent to specifically target the area of an injury. The Applicants' claimed invention simplifies the delivery/release, instead of using or adding relatively complex communication and control, to facilitate the release of an ultrasound contrast agent to specifically target the area of an injury. Utilizing a chemical and/or piezoelectric components, for instance, in the delivery/release permits the claimed invention to avoid the need for relatively complex communication and control devices, and therefore contrary to the Office Action assertion, it would not have been obvious to merely substitute one known type of delivery system for another.

Claims 1, 11, and 20 have been amended to clarify that a "piezoelectric sensor" and "acoustic signal" are utilized to control the release of an ultrasound contrast agent to specifically target a proximity of an injury. These amendments are supported at least by the Applicants' specification in FIG. 1, and at page 11, lines 20-26: "In its simplest form, the capsule 108 exists without a sensor and associated circuitry, and is configured as a chemically-controlled timed-release system, with contrast agent(s) 104. In a more complex configuration, the delivery/release system 106 is contemplated to have a capsule 108

containing a non-lead piezoelectric sensor 110, such as polyvinylidene flouride (PVDF), for receiving and responding to an acoustic signal, and a compartment 112 for the contrast agent(s) 104." *Ishikawa et al.* does not teach or suggest the use of a "piezoelectric sensor" and "acoustic signal" to control the release of an ultrasound contrast agent to specifically target a proximity of an injury.

Since *Ishikawa et al.* does not disclose or suggest each and every element of amended claims 1, 11, or 20 then these claims and their corresponding dependent claims, 12-9, 12-19, and 21-24 should be allowable over the cited references.

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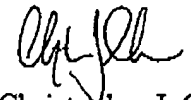
CONCLUSION

Claims 1-9, and 11-24 remain pending. Independent claims 1, 11, and 20 have been amended by the present response. Claims 1-9, and 11-24 are now in condition for allowance. The Examiner is invited and encouraged to contact the undersigned attorney of record at (404) 815-6048 if such contact will facilitate a Notice of Allowance. If any additional fees are due, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 11-0855.

Respectfully submitted,



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DATED: **JULY 24, 2006**

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